Quality Control

Work Ord Wednesday, Jun				*120	)525*							Page 1	
Item ID: Revision ID: Item Name:	D3407-3 Stem			Accept	*N900	040	1100	)*	Setup	Start Stop		S1*	=
Start Date: Required Date: Reference:	6/04/14	<b>Start Qty:</b> 20.00 <b>Req'd Qty:</b> 20.00	*20* *20*		Cust Item 1 Customer:						*N:	S2*	
Approvals:	Process Pla	in: MCZ	Date: 19-06-09	Tooling:SPC (Y/N):		ate:		I	Run	Start Stop		R1* R2*	
Sequence ID/ Work Center II		Operation Description		Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reje Qty		Reject Number	Insp. Stamp	-
Draw Nbr D3407	Rev	ision Nbr E											D.
*100 *100* Doosan Lathe		DOOSAN LATHE  Memo  1-Turn as pe	r Folio FA597 Rev:🎣 &	0.00 0.00 Dwg D3407 Rev: <u></u>				20	Z	<u> </u>		# # # \ /4-6-18	9-5
	-	Mill slot wid	Ith at max tolarance .260"									\	DAS
110 *1 1 0* QC		QC2- Inspect parts off m	achine FAI/FAIB	0.00				20		Ø		9 3 5AS	9-89

D	QA:			_ Date:			<u> </u>							T	
							WORK ORDER NON	I-CONF	OF	RMANCE / UPDATE				AEROSPA	CE
Q	A Closed:			Date:							W	ork Order u	odate only		
	Work Ord	ler:					DISPOSITION			AGA					
					·		Rework	7 <b> </b>		Skid-tube Cross	stube	1	Water Jet	Engineering	٦
	Part l	No.					Scrap	<b>1</b>		<b>├</b> ──	ll Fab	Pro	d. Eng. Coor.	Quality	1
							Use-as-is	Th	erm	noforming Finis	shing	1	re/Packaging	<b>─</b>	7
	NCR	No.					Suspected Unapproved	]		Large Fab Comp	osite		Supplier		]
	Root					Desc	ription of work order update	Initia	al [	Action		Sign &			
	Cause		Date	Step	Qty		or non-conformance	Chief E	ng	Description		Date	Verification	n QC Inspector	r
D	esign														
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- 1	quip/Tooling	<u> </u>							l						
	andling/Pre	<u> </u>							ĺ						
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<u>ت</u> ابن	парріотес		1	<u> </u>	1	l		FAULT	CAT	FGORY		L	L	!	
CH-S	Landi	ing (	Gear			,	General								
			Bending				Bend	Foli	o/Pi	rogram		Outside Dim	ensions	Pressure/Forced	
			Centre No	ot Conce	ntric		BOM/Route	Gra	in			Over/Under	tolerance	Set-up	
			Cracks				Broken/Damage/Defect	Hard	dwai	re		Part Incorred	લ	Temperature/Cure	e
			Crimp/Kir	nk/Ripple	/Wave		Burrs	Insp	ectio	on Incomplete/Unqualified	i 🗌	Part Lost/Mi	ssing	Weld	
			Cuffs				Contamination	Insti	ructi	ons Incomplete/Unclear		Part Moved	<del>-</del> - [	Wrong Stock Pulle	:d
			Crushing				Countersink	Mis	alig	ned/off center		Positioned V	Vrong		
			Heat Trea	•		<u> </u>	Cut Too Short	Misl	label	led		Power Loss/	Surge	Other	
		-	Inspection		Tube		Drawing	Mist							
		<u> </u>	Marks/Ch			<u> </u>	Drill Holes	Off-							
		<u> </u>	Turning S	-			Finish	-		alibration	-				
i		1	Wave/Tw	ist in Tul	ne ne	ı	Fit/Function	I lout	of S	equence					

## \*120525\*

Page 2

Wednesday, June 04, 2014 3:07:36 PM Item ID: D3407-3 Accept \*N900040100\* Setup Start **Revision ID:** Stop Item Name: Stem Start Date: **Start Oty: 20.00** 6/04/14 **Cust Item ID:** Required Date: 6/04/14 Req'd Qty: 20.00 \*20\* **Customer:** Reference: Run Start Approvals: Process Plan: \_\_\_\_\_ Date: **Tooling:** Date: Stop Date: SPC (Y/N): Date: Sequence ID/ Operation Tool ID Set Up/ Tool # Plan Reject Accept Reject Insp. **Work Center ID** Description Qty Qty **Run Hours** Code Number Stamp 120 QC8- Inspect parts - second check 0.00 DAS 80 \*120\* D. = 14/04/19 20 \$ 9-89 QC 0.00 Memo Quality Control Identify as per dwg & Stock Location: (WHO) 130 0.00 14-06-26\_MAL 20 \*130\* Packaging 0.00 Memo Packaging 140 QC21- Final Inspection - Work Order Release 0.00 YS WORK CUM \*140\* OC mx 6- 36 0.00 Memo Quality Control

DQA:	-		Date:											TOACT
OA Clasadi			Data			WORK ORDER NON-	-CC	ONFO	RMANCE / UI		lark Ordan u	ndata ankı		AEROSPACE
QA Closed:			Date:		1			·		V	/ork Order up	odate only		
Work Orde	er:					DISPOSITION				AGAINST D	EPARTMENT	/PROCESS		
						Rework			Skid-tube	Crosstube	7	Water Jet		Engineering
Part N	No.					Scrap			Machining	Small Fab	Pro	d. Eng. Coor.		Quality
						Use-as-is		Therr	noforming	Finishing	Rec/Sto	re/Packaging		Other
NCR N	No					Suspected Unapproved			Large Fab	Composite		Supplier		
Root	<u> </u>		1		Desci	ription of work order update		Initial	Act	ion	Sign &			<u> </u>
Cause	l r	ate	Step	Qty	Desci	or non-conformance		ief Eng		iption	Date	   Verification	,	QC Inspector
Design	<b>—</b>	7010	эсер	٠,		or non comornance		iici Liig	Desci	iption	Date	verification	<del>'</del>	QC IIISPECTOL.
Doc/Data														
Equip/Tooling									:					
Handling/Pre												:	l	
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Offset/Setup														
Process													İ	
Supplier												·		
Training														
Transport														
Unapproved														
							FAL	ULT CAT	regory					
Landi	ng Gear	r				General		,			_	,		
	_	nding				Bend	L_	1	rogram		Outside Dim	ensions		Pressure/Forced
			t Concen	itric	<u> </u>	BOM/Route		Grain		<u>_</u>	Over/Under	tolerance	_	Set-up
	—	icks			$\perp$	Broken/Damage/Defect		Hardwa		_	Part Incorred		$\neg$	Temperature/Cure
	_		k/Ripple/	/Wave		Burrs	-	1	ion Incomplete/Un	· —	Part Lost/Mi	ssing		Weld
	Cuf				<u> </u>	Contamination	-	1	ions Incomplete/U		Part Moved	l		Wrong Stock Pulled
٠		shing				Countersink	-	•	ned/off center	× ,	Positioned V			
		at Treat			$\vdash$	Cut Too Short		Mislabe		* 1	Power Loss/	Surge		Other
	_		Strip in	Tube		Drawing	⊢	Misread		•				
	_	rks/Cha			<u> </u>	Drill Holes	-	Off-set			4	, · ,		
•	_		quence			Finish	-	4	Calibration					
	JWa	ve/Twis	st in Tub	e		Fit/Function	l	Out of 9	Sequence					

## **Picklist Print**

Wednesday, June 04, 2014 3:07:36 PM

Work Order ID: 120525

\*120525\*

Parent Item:

\*D3407-3\*

Parent Item Name: Stem

**Start Date:** 6/04/14

Required Date: 6/04/14

**Start Qty: 20.00** 

Required Qty: 20.00

**Comments:** 

IPP Rev:A05.10.18New issueKJ/EC

IPP Rev:B Now on Doosan 08-05-14 JLM Verified By:DD

IPP Rev:C 08-08-12 revE as per dwg (ecn 08-507) DD verified by:EC

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	•	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
M174R0,750 <b>*M174R0</b> 17-4 round bar .750	750*	Purchased	No			100	f	17.1600	0.366 <b>**</b>	7.705264  Y- C	_	DAS 13 9-89	
	·			Location MAT030		<b>Loc (</b>	<u>)ty</u> 7.16	Loc Code					
	•				27647		7.16 7.16		_	90			

DQA:			Date:			WORK ORDER NON-CONFORMANCE / UPDATE								
QA Closed:			Date:			WORK ORDER NON	-C(	JNFOI	KIVIANCE / UI		Vork Order up	odate only	$\neg$	AEROSPACE
Work Ord	or.					DISPOSITION				AGAINST D	EPARTMENT	/PROCESS	•	
WOIK OIG	C1.				<del></del>	Rework	ı		Skid-tube	Crosstube	7	Water Jet	$\neg$	Engineering
Part I	Vo.					Scrap			Machining	Small Fab	Pro	d. Eng. Coor.	$\dashv$	Quality
			-		<del></del>	Use-as-is		1	noforming	Finishing	_	re/Packaging	$\dashv$	Other
NCR I	۷o.					Suspected Unapproved			Large Fab	Composite		Supplier		
Doot			i i		Dass	rintian af wall and an walle			I	•	C: 0		<u> </u>	
Root		Data	Ston	0+1	Desc	ription of work order update or non-conformance		Initial	Act		Sign &	Vanifiaatia.		06 In an antan
Cause		Date ಒು೧	Step	Qty		or non-comormance	<u>Cr</u>	ief Eng	Descr	ription	Date	Verification	1	QC Inspector
Design Doc/Data	$\vdash$	13												
Equip/Tooling		€16 A												
Handling/Pre														
Material	Н										İ			
Operator														
Offset/Setup	$\vdash$													
Process	Г													
Supplier			·											
Training						,								
Transport											·			
Unapproved														
							FA	ULT CAT	TEGORY					
Landi	ng (	Gear ·				General		_						
		Bending				Bend		Folio/P	rogram		Outside Dim	ensions	''	Pressure/Forced
		Centre No	ot Concer	ntric		BOM/Route		Grain		Ĺ	Over/Under	tolerance	<u></u> !	Set-up
	-	Cracks				Broken/Damage/Defect	L	Hardwa	ire	<u> </u>	Part Incorre		$\neg$	Temperature/Cure
	-	Crimp/Kir	rk/Ripple	/Wave		Burrs	_	1 .	ion Incomplete/Ur		Part Lost/Mi	ssing		Weld
		Cuffs			<u> </u>	Contamination	<u> </u>	4	ions Incomplete/L	Jnclear	Part Moved	[	\	Wrong Stock Pulled
	-	Crushing			<u> </u>	Countersink		-	ned/off center	·	Positioned V			
	-	Heat Trea			$\vdash$	Cut Too Short		Mislabe		L	Power Loss/	Surge	(	Other
		Inspection	-	Tube	$\vdash$	Drawing	<u> </u>	Misread						
	lacksquare	Marks/Ch			<u> </u>	Drill Holes		Off-set						
	$\sqcup$	Turning S			$\vdash$	Finish	_	4	Calibration					
		Wave/Tw	ist in Tub	e		Fit/Function	<u> </u>	Out of S	Sequence					

DART AEROSPACE LTD	Work Order:	120525
Description: Stem	Part Number:	D3407-3
Inspection Dwg: D3407 Rev: E		Page 1 of 1

## FIRST ARTICLE INSPECTION CHECKLIST

X	First Article		Prototype
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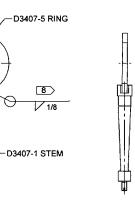
Drawing Dimension	Tolerance	Actual Dimension	Accept	Reject	Method of Inspection	Comments
0.063	+/-0.010	.065				
1/4-28 UNF	Max: 0.2668 Min: 0.2635	. 264	/.			
Major Ø	Max: 0.249 Min: 0.2425	-245	<i></i>			
Ø0.625 👯	+/-0.010	625				
Ø0.363 *	+/-0.010	.363				
Ø0.750	+/-0.010	9.750				
R0.100	+/-0.010	R.100				
0.470	+/-0.010	.470				
0.250	+/-0.010	. 235	/ .			
2.555	+/-0.010	2.555	/			
3.305	+0.000/-0.010	3.303				9.
4.325	+/-0.010	4.322				
0.150	+/-0.010	. 150				
0.550	+/-0.010	· 5 <i>SD</i>				
0.625	+/-0.010	.627				
0.250	+0.010/-0.000	.259				
•						
<del> </del>		•				

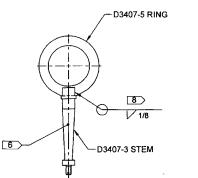
Measured by:	69-6	40 9-89	Audited by:	DAS 08	Prototype Approval:	N/A
Date:	14-84018		Date: 14/0	C/19 9-89	Date:	N/A

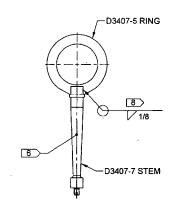
Rev	Date	Change	Revised by	Approved
Α	06.11.08	New issue	KJ/JLM	
В	07.09*26	Tolerances revised	KJ/EC	
С	08.05.14	Dimensions updated per Dwg Rev D	KJ/JLM LA	
D	08.10.07	Dimensions updated per Dwg Rev E	KJ/DD 🛠	77

Ł QTY -045 QTY -043 PART NUMBER DESCRIPTION D3407-041 **TOW RING** TOW RING D3407-043 D3407-045 TOW RING D3407-1 STEM D3407-3 STEM D3407-5 D3407-7 STEM











RETURN TO ENGINEERING **UNCONTROLLED COPY** SUBJECT TO AMENDMENT WITHOUT NOTICE WORK ORDER NO. 120525 MLJ (406-09)

**D3407-041 TOW RING** 

**D3407-043 TOW RING** 

<u>D3407-045 TOW RING</u> €

Ę	ADD D3407-045 (ZN B2-1, D8-1); ADD D3407-7 (ZN B6-5); REVISED NOTE 6 TO ADD IDENTIFICATION (ZN A5-1); REASON: PRODUCTION FACILITY	PH	08.07.23
D	D3407-1/-3 SLOT WAS ROUND NOW FLAT FOR ASSEMBLY WITH D3407-5 [ZN C2-2, C2-3]; D3407-5 WAS ROUND NOW FLAT ON ONE END FOR ASSEMBLY WITH D3407-1/-3 (ZN B6-4); REASON: PRODUCTION FACILITY	PH	08.04.07
С	-1/-3 LONGER FOR FIT W/WASHER	CP	05.09.09
В	UPDATE DIAMETER, THREAD CLASS ADDED	CP	05.06.17
Α	NEW ISSUE	CP	05.03.16
REV.	DESCRIPTION	BY	DATE

DESIGN	_197	DART AEROSPA	CE USA, INC.			
DRAWN	Ped	PORT HADLOCK, WA				
CHECKED	15	DRAWING NO.	REV. E			
MFG. APPR.	£/1	D3407	SHEET 1 OF 5			
APPROVED		TITLE	SCALE			
DE APPR.	-#	TOW RING	NTS			
DATE 08.0	7.23	COPYRIGHT © 2005 BY DART AEROSPACE USA, INC. THIS DOCUMENT IS PROVIDE AND CONFIDENTIAL MIDDLE SUPPLED ON THE EXPRESS CONDITION THAT IT IS				

8

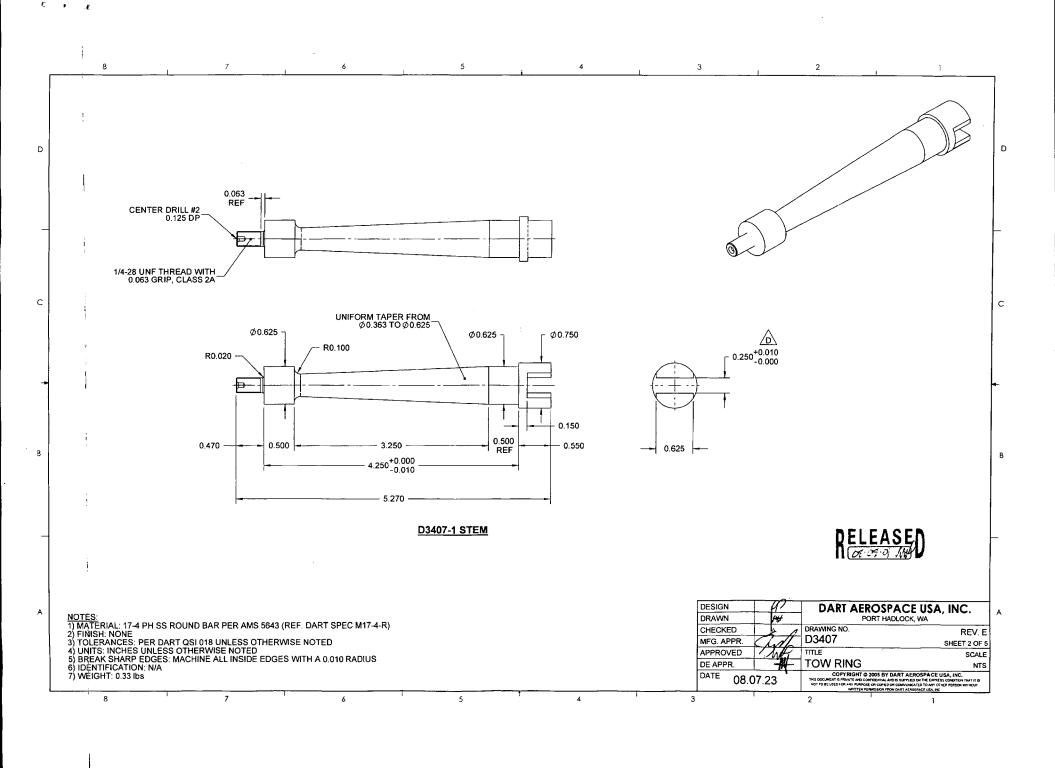
С

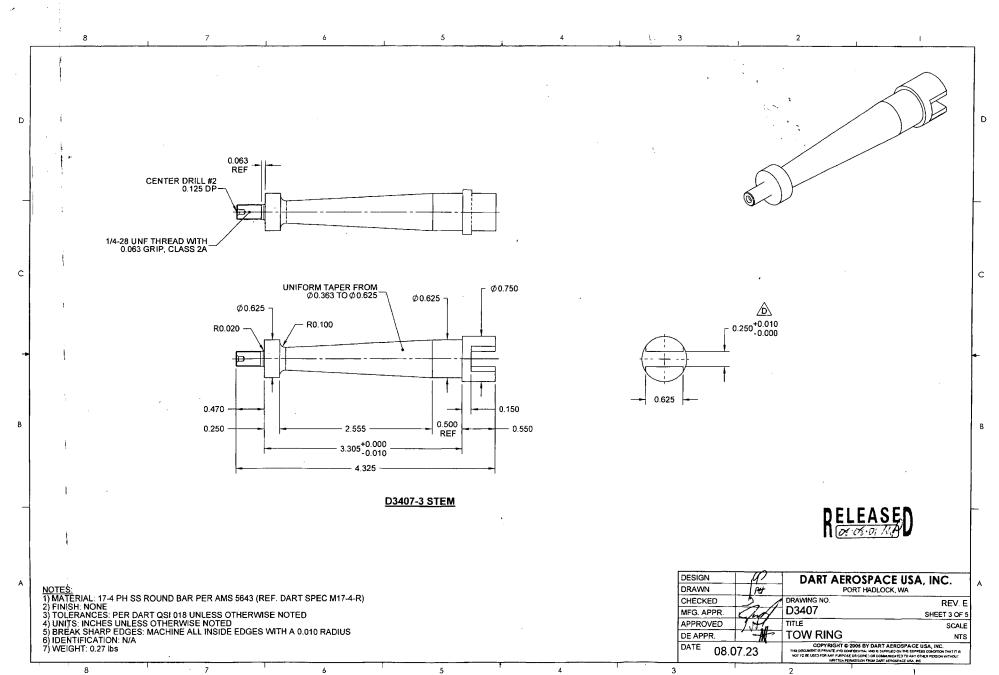
1) MATERIAL IN/A
2) FINISH: POWDER COAT WHITE (4.3.5.2) PER DART QSI 005 4.3 (EXCEPT THREADS)
3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
4) UNITS: INCHES UNLESS OTHERWISE NOTED

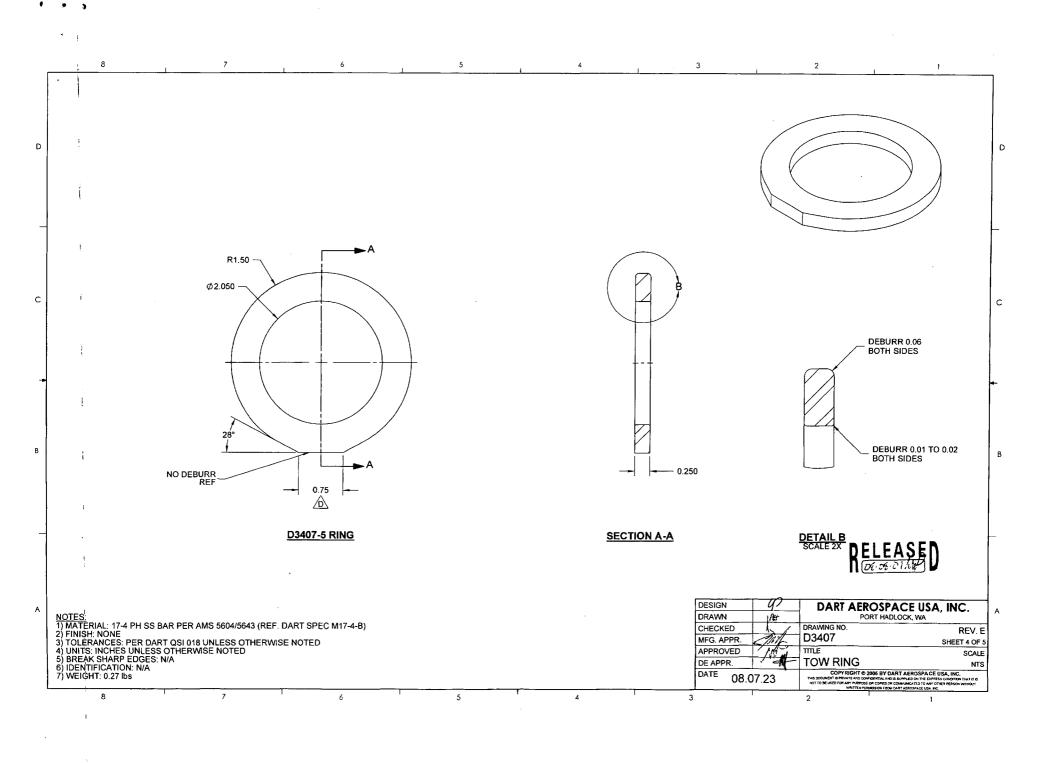
8

4) ONTS: INCHES UNLESS OTHERWISE NOTED
5) BREAK SHARP EODES: NA
6) IDENTIFICATION: IDENTIFY WITH DART P/N "D3407-XXX" USING BLACK FINE POINT PERMANENT INK MARKER

7) WEIGHT: D3407-041 - 0.80 lbs, D3407-043 - 0.53 lbs, D3407-045 - 0.61 lbs
8) WELD PER DART QSI 004 ON ALL EDGES BETWEEN STEM AND RING







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